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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,175	09/10/2003	Kenneth E. Gall	H0004558	7596

7590 01/27/2005

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EXAMINER

ALLEN, ANDRE J

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/660,175	Applicant(s) GALL ET AL.	
	Examiner Andre J. Allen	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,4,8,11,14,15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hersey (US 3,588,395).

Regarding claims 1 and 11 Hersey teaches a sensor element 33 40 located on a base 14 26 cover 13 located proximate to said base, wherein said cover comprises a sensor diaphragm 51 and a an inward dimple 54 that is formed into and a part of said cover; and a flanged 25 area formed to a bottom portion of said cover, wherein said flanged 25 area provides a surface for contacting a fixture 14 to which said sensor apparatus attaches and holding said sensor 33 40 apparatus to said fixture 14 in a manner which prevents said sensor diaphragm from contacting said fixture and inducing errors during sensor operations thereof.

Regarding claims 3 and 14 Hersey teaches said dimple 54 is formed from and incorporated into said cover 13.

Regarding claims 4 and 15 Hersey teaches a pressure transducer sensor diaphragm 51.

Regarding claims 8 and 19 Hersey teaches a pressure sensor 10.

2. Claims 1,2,4,11-13,15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lia et al (US 5966829).

Regarding claims 1 and 11 Lia et al teaches a sensor element 34 40 located on a base (fig. 8 upper outer periphery) cover (fig. 8 lower outer periphery) located proximate to said base, wherein said cover comprises a sensor diaphragm 38 and an inward dimple 54 that is formed into and a part of said cover (fig. 8 lower outer periphery); and a flanged 140 area formed to a bottom portion of said cover, wherein said flanged 140 area provides a surface for contacting a fixture 152 to which said sensor apparatus attaches and holding said sensor 34 40 apparatus to said fixture 152 in a manner which prevents said sensor diaphragm from contacting said fixture (fig. 8) and inducing errors during sensor operations thereof.

Regarding claims 2,12,13 Lia et al teaches said flanged area 140 is connected to and surrounds said bottom portion of said cover (fig. 8 lower outer periphery) and is further positioned parallel to at least part of said sensor diaphragm 38 (fig. 8).

Regarding claims 4 and 15 Lia teaches a pressure transducer sensor diaphragm 34.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7,10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hersey (US 3,588,395) in view of Kurtz et al (US 5,999,082).

Hersey teaches all the basic features of the claimed invention but does not teach a silicon pressure sensor. Kurtz teaches a sensor element which comprises silicon (abstract). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the pressure sensor taught by Hersey with a silicon structure as taught by Kurtz for the

purpose of cost effectively, efficiently and accurately sensing pressure that is being applied within a sensing structure (col. 1 line 13 through col. 2 line 18).

4. Claims 5,6,9,16,17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hersey (US 3,588,395).

Regarding claims 5,6,16,17 and 20 Hersey teaches all the basic features of the claimed invention but does not teach using quartz, ceramic or SAW type sensors. However, lacking any criticality it would have been obvious to one having skill in the art of pressure transducers at the time the invention was made to modify Hersey with ceramic or quartz since it has been held to be within the general skill of a worker in the art to select a material on the basis of its suitability and intended use. In re Leshin, 125 USPQ 416. In this particular case it would have been obvious to select the most feasible material readily available to the manufacture without undo experimentation and trial/error for the purpose of creating a pressure transducer that operates at optimum performance for the desired application. With respect to the implementation of SAW sensors, the examiner takes official notice of the use of SAW sensors since SAW type sensors are of notorious character in the art of pressure sensing.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

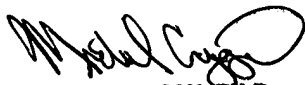
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

André Allen
Patent Examiner
Art Unit 2855


MICHAEL CYGAN, Ph.D.
PRIMARY EXAMINER